SCIENCE & GOVERNMENT REPORT

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Presidential Study Gives High Marks to NIH

Back in the days when Mr. Nixon, as we are now informed, was discoursing with portraits in the White House art collection, he found utility in compromising with the Senate's desire for an extensive inquiry into the executive-level turmoil that had enveloped the National Institutes of Health (NIH) and the Alcohol, Drug Abuse and Mental Health Administration (ADAMHA).

The origin of the turmoil, of course, was our then-President's politically inspired forced feeding of cancer research, to the detriment of other research, plus his treatment of NIH brass as though they were cow college football coaches down on their luck.

Mr. Nixon did not initially favor the idea of an inquiry. But he opted for it as an alternative to an earlier proposal by Senator Kennedy, which called for creation of an ongoing panel of outside specialists who would meet monthly to monitor NIH and its inscrutable sister agency, ADAMHA. To be modeled after the influential President's Cancer Panel, the Kennedy design would have cut seriously into White House influence over biomedical and behavioral research, and therefore Nixon threatened a veto. But in July, 1974, needing all the Congressional friends he could muster as impeachment approached, he suddenly agreed to creation of a 7-member President's Biomedical Research Panel that would conduct a 15-month inquiry and then dissolve. Two weeks later, Nixon was out of office; 6 months later, Gerald Ford, prodded by his newly installed Vice President, got around to appointing the members — six past and present medical school mandarins, plus the formidable Benno Schmidt, the Nixon crony and Wall Street financier who rules the Cancer Panel (SGR Vol. V, Nos. 11, 13).

An Inside Report on
The Old Days at FDA—Page 3

Meeting twice monthly and taking testimony from 162 persons who are in one way or another involved with the work of the two agencies, the Panel delivered its report on schedule, April 30. Covering 34 pages that were distilled from both the testimony and a prodigious pile of specially prepared and collected studies, *The Report of the President's Biomedical Panel* emerges with a simple conclusion:

NIH is in relatively fine shape, but would be even better off if the politicians would support it well and leave it alone to do basic research; ADAMHA needs more money for research.

The conclusions add up to an undiluted dose of the oldtime ideology of pure research as a societal good that is so meritorious and indispensable in improving health care that only clods would question the costs or subject it to skeptical scrutiny. Most of all, the Panel insists that outsiders must stop badgering NIH, that Congress and the Administration must avoid zig zags with its budget, that planners must be restrained in adding health-care responsibilities to NIH's traditional research role, and that Congress must cease its tactic of appeasing disease-of-the-month pressure groups by adding new institutes to NIH. (The Panel, in fact, calls for consolidating some of the existing institutes, though it makes no specific recommendations on that point).

The thrust of the report is, overall, favorable to NIH and disapproving of the performance of the

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In Brief

Five of the six men who have served as fulltime presidential science adviser were present May 11 when President Ford signed legislation reestablishing the White House science office. Absent was George Kistiakowsky, Eisenhower's science adviser, who opposed the legislation as too late in the presidential election cycle to be meaningful. Kistiakowsky, an emeritus professor at Harvard, told SGR, that "the move is ill-timed." He added that he would prefer to use the cost of a trip to Washington to support his presidential choice — Morris Udall.

The signing ceremony could have been the occasion for announcing who is to head the new White House Office of Science and Technology Policy. But it wasn't. One high-level science aide present at the garden ceremony said, "Who wants it?"

It looks as though Senator Proxmire's Senate colleagues are going to come to his assistance in providing legal fees for the libel suit that the Wisconsin Democrat faces from a researcher who took offense at one of the Senator's Golden Fleece awards (SGR Vol. VI, No. 8). The Justice Department offered to provide counsel, but Proxmire has engaged his own, with the understanding that the Senate will pay the costs.

...A Plan for Recapturing the Cancer Institute

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surrounding political elements in biomedical politics.

"The United States," it asserts in an introduction, "can take pride in a remarkably productive biomedical and behavioral research effort. The Panel is convinced that despite the appearance of strains in the structure and some dislocation in the parts, the edifice is sound."

And the Panel goes on to give its endorsement to a remarkable assertion by a subcommittee, chaired by Lewis Thomas, president of Memorial Sloan-Kettering, to the effect that recent research has shown that all diseases can eventually be prevented or cured:

"Human beings," stated the Thomas subcommittee, "have within their reach the capacity to control or prevent human disease . . . (This) is, in fact, a realistic, practical appraisal of the long-term future . . . There do not appear to be any impenetrable, incomprehensible diseases."

The response of the Biomedical Research Panel: "The Panel subscribes to this view of the future."

This comment is offered without reference to the HEW's latest *Forward Plan for Health* (SGR Vol. V, No. 16), which states, "In recent years, it has become clear that only by preventing disease from occurring, rather than treating it later, can we hope to achieve any major improvement in the Nation's health."

Thus, the report of the Panel exudes faith in basic biomedical research and in the institutions that are responsible for conducting it. However, since faith is not a particularly negotiable commodity in Washington, the report would disappear as no more than another paean to basic research if it did not offer more. It does — in the form of a shrewdly conceived scheme for ridding the biomedical enterprise of its political problems with cancer.

Those problems date back to the National Cancer Act of 1971, which granted semi-autonomous status to the National Cancer Institute by removing its budget from the review processes that apply to the rest of NIH; the Act also linked NCI directly to the White House through the National Cancer Panel. As a result of these two exceptions from the normal way of doing government business, NCI's budget has boomed, while the other parts of NIH have been charging that NCI's good fortune has often been at their expense.

The Biomedical Research Panel says it examined the charge and found it false. Nevertheless, it did come up with a formula for eventually abolishing NCI's privileged status.

Though the Panel's staff recommended that a super advisory board be created in parallel to the Cancer Panel to oversee all biomedical research outside of NCI (SGR Vol. VI, No. 5), the final decision of the President's Panel was considerably more complex than that. Stating that Schmidt took no part in these deliberations, the Panel recommended that Schmidt's Cancer Panel be expanded in membership and scope to encompass all of biomedical research. The advantage of this is that it does not impose two presidential panels on NIH, and it enlists the political influence of Schmidt in behalf of all of biomedical research.

Since Schmidt's term is up in two years, and though reappointment is possible, his high-wire act as Cancer Czar cannot go on indefinitely, it may be assumed that the Biomedical Panel decided to exploit his unusual political role and then restore NIH back to one piece. Regarding the expanded role for the Cancer Panel, which would become the President's Biomedical Research Panel, the report states, "This proposal provides the opportunity, if experience so dictates, to fully integrate the National Cancer Program with the other programs of NIH in due time."

"Due time" being deliberately vague and the problems of NIH being highly concrete, the Panel proposed relief from the political problems of cancer by suggesting a start toward restoring the Director of NIH to his oldtime position as boss of the entire Bethesda campus — NCI included. The words are characterized by tact and caution, for the cancer lobby prefers to keep NCI insulated from the budgetary problems that afflict the rest of NIH. But the meaning is clear:

"The Panel believes that the Director, NIH, should be the central figure at the NIH accountable for planning and decisionmaking. It does not recommend that the special status of the NCI be changed at this

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Contributing Editors
Colin Norman, Pamela Moore

Editor and Publisher
Daniel S. Greenberg

Circulation Manager
Alice Anne Freund

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FDA: Doctors Throwing Spitballs and Moaning

The following excerpts are from testimony that Richard J. Crout, director of the Food and Drug Administration's Bureau of Drugs, delivered April 19 to the Review Panel on New Drug Regulation, a study group appointed by the Secretary of HEW:

". . . you have not been told things like I am going to tell you . . . The agency (FDA) was a most unusual place at the time that Dr. (Charles) Edwards became Commissioner (1969), and I want to remind you of that era and the chaos around it because we are still trying to sort out some of the events of the day. . . In 1964-65, the agency moved from downtown (Washington) to Crystal City (in suburban) Virginia. And a lot of people thought the agency was going to stay in Crystal City, settled down, made commitments, bought homes in Virginia. . Then five years later, in 1970, the agency was pulled up and moved to Rockville, the Parklawn Building (in suburban Maryland, on the opposite side of the Washington Metropolitan area). . .

"I would also remind you in 1969 Dr. Edwards was the fourth Commissioner . . . in a 6-year period, I guess. . . (I)n the Parklawn building . . . you must picture that now, full of unhappy people suddenly up there, many of them, as I say, living in Virginia, feeling their lives were uprooted, no carpets in the buildings, the place half-painted, walls being built, . . . When I talked with . . . physicians or pharmacologists about the new drug application process at that time, they were clearly interested in the loss of documents, the chaos in applications, the fact that managerial assignments were confused. . . And people felt they were on the hook for work assignments that actually had never been given them. . . They felt they were operating as clerks, and there weren't any secretaries, no document control, nobody knew where anything was.

"There is an enormous documents room . . . where literally some people said fights went on and there was absenteeism. There was open drunkenness by several employees which went on for months. There was intimidation internally by people. There was a great deal of what I would call feudalism in the bureaucracy. . .

"I tell you that in my first year at the FDA (1971), even lasting longer than that, '72, '73, going to certain kinds of meetings was an extraordinarily peculiar exercise. People, I am talking about division directors and their staff, would engage in a kind of behavior that invited the invitation (sic) of subordination. People tittering in corners, throwing spitballs — I am describing physicians — people who would, let me say, slouch down in a chair, not respond to questions, moan and groan with sweeping gestures, a kind of behavior I have not seen in any other institution as a grown man. . .

"And we instituted . . . it took two years — a new documents control system and a new management control system, whereby it is now all on computers as to who has what documents. . . Prior to 1974, not one scientific officer in our place knew his work assignments, nor did any manager know the work assignment of the people under him."

BIOMEDICAL *(Continued from Page 2)*

time. . . . While the Director, NCI, will still retain a special budget bypass authority, full opportunity should be given to the Director, NIH, and the NIH Advisory Board, to consider the budget and legislative requests of the NCI in a timely fashion before submission of such requests to the President and the Congress."

The Administration has not yet commented on the report. Senator Kennedy's Health Subcommittee plans to hold hearings on the report probably later this month. A subcommittee staff member indicated, however, that the Kennedy camp regarded the report as to narrow in its view of the role of basic biomedical research in the overall problems of national health care.

The chairman of the Panel was Franklin D. Murphy, a physician, former medical school dean and university chancellor who is chairman of the Times Mirror Corp.

The other members, in addition to Schmidt, were: Ewald Busse, Duke; Robert Ebert, Harvard; Albert Lehninger, Johns Hopkins; Paul Marks, Columbia, and David Skinner, University of Chicago.

Copies of the report, plus supporting materials, will soon be available from the US Government Printing Office.—DSG

Women, Minority Engineering Enrollments Show Increase

Women and minority group members comprised tiny slices of last year's crop of engineering graduates, but their representation is considerably higher in the current freshman class, according to a study prepared for the National Academy of Engineering Committee on Minorities in Engineering.

The study, conducted by the Engineering Manpower Commission, found that at all degree levels last year, women made up 2.3 per cent and minorities 6.5 per cent of the graduating classes. The explanation offered for this showing is that when those students entered as freshmen four or more years ago, there were no organized efforts by the profession to encourage women and minorities to seek careers in enginering.

Shifts Urged in Federal Graduate Study Support

While Congress and the Office of Management and Budget continue squabbling over the training of health researchers — Congress restoring research training funds for this year and OMB issuing its annual call for a phaseout next year — a National Research Council committee has called for the preservation of research training, but with some changes.

The NRC did not rush into the risky business of manpower policy-making with enthusiasm. But when Congress mandated a continuing study of national needs for research personnel in the 1974 National Research Service Awards Act, it did not refuse. So, its Committee on a Study of National Needs for Biomedical and Behavioral Research Personnel, caught squarely in the middle of a political dispute, gingerly set out to justify the federal role in training for fields, which, according to some data, can anticipate a serious surplus of graduates.

The report, which may be as political as it is scientific, puts forth several major principles which generally deemphasize the sheer production of research scientists and accentuate the need for highly sophisticated personnel to work on increasingly complex health research questions. In general, the spotlight is on post-

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doctoral training, the most dramatic instance of which is the report's recommendation for a reversal from graduate student support to postdoctoral training in the behavioral sciences, disciplines which lack a tradition of postdoctoral research training. In addition, the report recommends:

- A 10 per cent reduction from the FY 1975 level in the number of predoctoral students supported in the basic biomedical sciences and a holding pattern for postdoctoral students.
- A 10 per cent increase in the number of post-M.D., post-Ph.D. and other post-professional research trainees supported in the clinical sciences.
- Continuation of the current number of predoctoral and postdoctoral trainees and fellows in basic biomedical and behavioral disciplines related to work in the emerging field of health services research.

To some extent, the report's recommendations acknowledge what OMB, ideologically and otherwise opposed to federal subsidies for graduate and professional training support, has been doing for years. The FY 1977 federal budget, for example, reiterates OMB's phaseout stance on all but postdoctoral research fellowships for the Alcohol, Drug, Abuse and Mental Health Administration, which handles the bulk of behavioral science research training. The report encourages use of fellowship awards to individuals as the best mechanism for supporting postdoctoral study in the biomedical sciences. Coincidentally, the '77 budget also repeats OMB's decision to phase out institutional awards at NIH.

The report is both broad enough to be confusing and specific enough to worry some training agency officials with the possibility that it would leave them too little flexibility. It scrupulously avoids categorizing research training within the major areas of behavioral sciences, biomedical sciences, clinical sciences and health services research. And, its recommendations do not correspond to bureaucratic organization. Recommendations for the behavioral sciences apply to ADAMHA and NIH as

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Released Funds Boost Academic R&D Spending

Thanks mostly to the release in late 1974 of $150 million of impounded NIH funds, expenditures on research and development in colleges and universities increased by 12 per cent in FY 1975. According to the latest survey published by the National Science Foundation (NSF), that is more than twice the average growth rate of the past six years. Taking into account the 10 per cent inflation rate in FY 1975, however, the increase in purchasing power is a more modest 2 per cent.

Total academic R&D expenditures climbed to $3.4 billion, NSF reports, of which the federal government provided $2.3 billion.

Though all fields of science showed some growth — at least before inflation is factored in — the growth rates varied from 17 per cent for the life sciences to 2 per cent for the social sciences.

The figures indicate that the top 20 colleges and universities carried out 36 per cent of the total academic R&D and 40 per cent of the federally supported academic R&D.

Copies of the study, Number NSF 76-307, can be obtained free of charge from the National Science Foundation, Washington, DC 20550.

...Emphasis Is on More Specialized Training

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well, just as recommendations for the basic biomedical sciences apply to the biomedical training conducted by ADAMHA as well as NIH. However, the report does suggest specific mechanisms for training, through fellowships or training grants, depending on what the Committee thinks best for the fields in question.

In terms of impact on the disciplines, the report's recommendation for the behavioral sciences could have the most far-reaching effects. Specifically, it proposes ultimately to shift the current pattern of federal training support in ADAMHA and NIH from 90 per cent predoctoral and 10 per cent postdoctoral to 70 per cent and 30 per cent, respectively. To give an idea of the numbers involved, the report says there were 1754 behavioral science predoctoral research training awards in FY 1975 along with 212 post-doctorals.

Explaining the change, the Committee says there are enough Ph.D.'s being trained in the behavioral sciences to meet demand in the conventional disciplines. But, it notes, there is a growing need for more specialized behavioral science research training to grapple with increasingly complicated research problems in the area of behavior and health.

More pragmatically, such a policy would accomplish a number of other objectives as well. While it in no way speaks to a moratorium on graduate training, it gets the Committee and its behavioral science panel off the hook of justifying federal support for producing Ph.D.'s in a big way at a time when existing, if suspect, supply and demand data do not warrant it. And, although such a policy might not radically affect the number of students entering disciplines — federal money supports only a fraction — increased postdoctoral support would provide some immediate jobs for those with the Ph.D. already in hand.

In addition to the shift, the Committee recommends that federal support for behavioral science postdoctoral training be provided by way of training grants which pay for salaries, stipends and other essentials of the academic milieu, rather than through direct fellowship awards to individuals. Although the report backs fellowships as the mechanism of support for postdoctoral training in the basic biomedical sciences, it says different circumstances in the behavioral sciences call for a different approach. Namely, because the behavioral sciences do not have the tradition of postdoctoral training, faculties in training institutions will have a bigger role to play in organizing innovative postdoctoral research training experiences.

The Committee emphasizes that it is not calling for a cut in funds for behavioral science research training. But, because of the greater cost of postdoctoral training, the report notes, the shift would mean a significant reduction in the number of behavioral science investigators supported by the government in the next three years. That might not be all bad, it says, anticipating that such a change would enhance the quality of both programs and trainees.

ADAMHA and NIH, somewhat on the outside of the study, though they did much of the groundwork and had a last-minute crack at proofing the final draft of the Committee's report, express some concern over its ultimate usefulness. One complaint is that the report discusses numbers for research training outside the context of research needs, leaving the mandated question of training for what areas until next year's report. One internal memo circulating in the National Institute of Mental Health questions whether the behavioral sciences recommendation is realistic, given the lack of experience in post doctoral training. It also questions whether the innovation called for at the postdoctoral level can happen without altering the standard format, values and reward systems operating in predoctoral programs, which have trained as much for teaching as for research.

The report itself, is studded with cautionary statements about dubious data and calls for careful monitoring of all implemented changes to discover their effects. Any changes should be made gradually to minimize dislocations in the field, it states. The Committee worried out loud in the report about "the fundamental issue of the degree or extent to which it is possible and useful to define and establish human-resource requirements for increasingly fine fields of specialization. . ."

Nevertheless, with one eye on preserving the structure of federal training, which, if dismantled could take years to rebuild, and another eye on the handwriting on the wall, the Committee sent its first substantive report to HEW Secretary David Mathews. The question is whether, those reading, including OMB, will interpret it as biting the bullet or seeking the nearest exit.—PM

(Personnel Needs and Training for Biomedical and Behavioral Research — 1976 will be available in late June, without charge, from the Commission on Human Resources, National Research Council, 2101 Constitution Ave. N.W., Washington, DC 20418.)

Handler Seeking US Aid for National Academy

Along with many critics of the National Academy of Sciences, Philip Handler, the President of that venerable institution, has taken to complaining that the Academy takes on too many mundane tasks and that its committees are sometimes asked by government agencies to study the wrong questions (SGR Vol. V, No. 22). Last week, he advocated a surprising solution to that problem. The government, he said, should provide a no-strings-attached sum of money to enable the Academy to initiate some studies of its own.

Handler put forward that suggestion in his introduction to the first in an annual series of surveys of the Academy's activities. Noting that the Academy's Congressional charter requires it to take on whatever studies the government requests, Handler said that although negotiation between Academy staff and government officials often ensures that "the right question has been asked and stated in acceptable form," Academy committees have sometimes "been frustrated by a request to address a question that seems too narrow or an insufficient fragment of a total problem."

The Academy's "principal role," Handler argues, should be to address "long-term problems that must be managed on a time scale much longer than that of the normal political process." The drawback, though, is that government agencies rarely ask the Academy to study such matters since they mostly need quick answers to immediate problems, he indicated.

The Academy says that it has insufficient cash of its own to initiate many such studies. Handler notes, for example, that the National Research Council (NRC), the Academy's 1200-strong operating bureaucracy, is a costly enterprise living a "somewhat precarious existence" on overhead payments for studies it performs under government contracts. Because the NRC lacks a stable base of funding, "NRC committees have operated largely in a responsive mode, undertaking studies on the request of the government; only rarely has a committee been able to undertake, on its own initiative, a large, comprehensive study of a major question," Handler notes.

A "much more rational and desirable" arrangement, Handler argues, would be "a markedly larger endowment income or an annual and assured subvention analogous to endowment income, from the government to the Academy." Such funds, he continues, would "be acceptable only if ironclad guarantees were provided of freedom of the NRC from government control."

Though an annual, no-strings-attached operating budget would indeed allow the Academy to study some of the major issues for which its independence and expertise are suited, it is highly unlikely that the government would provide it, and it is surprising that Handler should look to such a source. As the recent spate of attacks on scientific projects indicates the Congress is in no mood to hand over a pot of money to an organization to use as it thinks fit. Moreover, if the Academy were to become dependent on a single source of money to stay in business, a threat of withdrawal of

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"News" from War on Cancer

The following excerpts are from two communications that news organizations received from the Roswell Park Memorial Institute (RPMI), New York State's comprehensive cancer center, at Buffalo.

April 28, 1976

"Seven months ago, the future of five West New York residents with malignant brain tumors was one of either physical disability or possible early death. Today they are confidently looking forward to a productive and useful life.

"This remarkable turnabout is being brought about by a combination of anti-cancer drugs . . . The optimism is based on a study of 12 patients with malignant brain tumors who had recently completed surgery, drugs, and radiation treatment at the Institute. The RPMI specialist cautioned that more research must be done in this area. However, based on the preliminary success of this program, a total of 31 patients are undergoing treatment. . .

"One patient, a Buffalo steel mill worker (whose) chances for survival beyond New Year's Day were very slim . . . said, 'I feel great . . . I drive my own car . . . and even taking the drugs doesn't make me sick.'"

May 4, 1976

"Recently, an RPMI news service release entitled, "Combination, Timing of Anti-Cancer Drugs Appear Effective in Treating Brain Tumors" was mailed to your publication.

"May we *please* request that you do *not* use this release, either in part or in its entirety.

"After reviewing it further with the researchers involved, we feel it is premature to release it to the public now. The work is in a very early stage and to announce it at this time might offer false hope to those afflicted with brain tumors and to their families, as well as to convey the impression that this work has progressed beyond its early stages. It has not . . ."

New Test Ban Scheme Arouses Arms Control Supporters

Early last month, the Ford Administration announced that it had negotiated a joint US-USSR treaty limiting the size of so-called peaceful nuclear explosions. An extension of the as yet unratified nuclear test treaty which President Nixon brought back from Moscow in 1974, the pact is beginning to stir up rumblings of discontent from arms control advocates who believe it will jeopardize moves to prevent the proliferation of nuclear weapons. Another round of arms control disputation seems assured when the Senate moves to consider the test ban package in the coming months.

The chief trouble with the peaceful nuclear explosives agreement is that it is an add-on to an already flawed treaty, and essentially makes a bad deal even worse. Though the final text of the agreement has not been released, Administration officials have described its chief features, and they have made much of the fact that it contains a provision to discourage cheating by allowing limited on-site inspection by foreign nationals.

The 1974 pact, which was signed by Mr. Nixon shortly before he resigned, limits US and Soviet nuclear weapons testing to blasts with yields smaller than 150 kilotons. It was not due to come into effect until last month, and it pointedly left unresolved the matter of so-called peaceful blasts.

It was swiftly denounced by critics on a variety of counts. First, the 150-kiloton threshold — nearly 20 times larger than the Hiroshima bomb — is too high to place any constraints on weapons development, and in any case, the 2-year delay in implementing the pact has enabled both sides to fire off all the high-yield blasts they wanted.

Second, the threshold level is totally unrelated to the level at which seismic techniques can identify underground blasts. That capability is now about 10-15 kilotons, though experts differ on the precise level.

And third, the failure to include peaceful blasts left a gaping loophole by enabling either side to shoot off large explosions and call them peaceful.

At least the agreement on peaceful explosions has partly plugged the loophole, but it has done nothing to remove other flaws in the treaty. According to Administration officials, the agreement also limits peaceful blasts to a level of 150 kilotons, but it would, however, allow multiple explosions with a combined yield greater than 150 kilotons. Advance warning would have to be given for such multiple blasts, and foreign observers would be permitted to ensure no cheating takes place. Exactly what rights of inspection they would have is not yet clear, however.

Since the US no longer has a peaceful nuclear explosives program, following the failure of the Rio Blanco gas stimulation experiment, one may wonder why the Administration felt it necessary to negotiate a separate treaty covering peaceful explosions. The answer lies in the recent Soviet fascination for using nuclear blasts to divert rivers and excavate canals. One little-noted aspect of such operations, however, is that they would be likely to vent radioactive gases into the atmosphere, thereby violating the 1963 Partial Test Ban.

The Federation of American Scientists (FAS) was first off the mark with a statement condemning the agreement last month. Noting the flaws in the original 1974 agreement, the FAS statement pointed out that the pact covering peaceful nuclear explosions will constitute a prop underneath the 150-kiloton limit, making it doubly difficult to reduce the limit by future negotiation.

The prospects for rarification at this stage are uncertain. Few Senators are willing to comment on the measure until the full terms are announced, but the 1974 agreement has already received a good pasting from many liberals, such as Senator Edward Kennedy. It should also be noted that the House is now on record as supporting a total test ban agreement. —CN

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the funds could be a powerful tool, whether or not the funds themselves come with "ironclad guarantees" against government interference in the Academy's business.

A number of Academy critics, most notably Philip M. Boffey in his book, *"The Brainbank of America,"* have suggested that the Academy should seek support for more self-generated studies. Boffey argued, however, that the Academy should become less, not more, dependent on government funding by refusing to take on every task which the government throws its way and reducing the staff of the NRC to a level which can more easily be supported by endowment and other independent sources of support. Such a move might require modifying the Academy's charter, however, a suggestion which Handler last December ruled out with the words "the charter is precious and I wouldn't touch it for the world" (SGR Vol. V, No. 22).

The annual survey, a useful compilation of information about Academy studies and essays by Academy officials, is available free of charge from the Office of Information, NRC, 2101 Constitution Ave. N.W., Washington, DC 20418.

NAS Threatens Sanctions Against Rights Violations

Guidelines adopted last month by the National Academy of Sciences state that the Academy may in the future issue public statements, or even threats to withdraw from participation in international exchange agreements, to protest government-sanctioned violations of human rights. Drafted by the NAS Foreign Secretary and adopted by the Academy's Council, the guidelines meet some recent criticisms of the Academy's failure to speak out publicly on such matters in the past.

Though the guidelines do not guarantee that the Academy will take a firmer stand, they at least indicate that the Academy's leadership has not ruled out the use of some powerful forms of protest.

"Violations of human rights . . . occur in many — perhaps all — countries," the guidelines state. "If the violations are egregious and perpetrated by, or with the consent of, the government of the country, then intervention from outside of the country may represent a very high form of the concern of members of the human race for one another."

In the past, Academy officials have often complained privately to officials in other countries about alleged violations of the human rights of individual scientists and engineers. The guidelines state that such representations will continue to be the chief method of approach, but add that they "may require fortification by stronger measures."

"We do not eschew entreaty by public vehicles," the guidelines continue, "indeed, we anticipate that such action will occasionally be appropriate." As for threats of withdrawal from participation in exchange agreements, the guidelines note that such a possibility "is always implictly in the background but is one that we can use only rarely."

Jeremy J. Stone, Director of the Federation of American Scientists, who has been among the most outspoken critics of the Academy's timidity in speaking out against violations of human rights, last week welcomed the guidelines as "forthright and constructive."

In a related move of dubious utility, but one which may placate the Academy's critics, Academy members adopted a resolution at the annual meeting last month affirming various principles of "freedom of inquiry and expression." The resolution calls upon scientists around the world to send the Academy a signed statement agreeing with the principles contained in the resolution.

Though it is not clear what the Academy intends to do with such statements — it has offered simply to be a repository for them — an Academy official suggested that a breakdown of the response by country may eventually be made public. If the response is overwhelming, it would also strengthen the Academy's hand when it protests individual infringements of human rights.

Copies of the resolution can be obtained from the Commission on International Relations, National Academy of Sciences, 2101 Constitution Ave. NW. Washington DC 20418. Signed statements should be sent to the same address, and confidentiality will be guaranteed to those who request it.

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